

REMARKS

Applicants will address each of the Examiner's rejections in the order in which they occur in the Final Rejection.

Claim Rejections - 35 USC §103

Claims 67-70 and 74

In the Final Rejection, the Examiner rejects Claims 67-70 and 74 under 35 USC §103(a) as being unpatentable over Sakurai (US 4,659,422) in view of Wakita (US 005960323A). This rejection is respectfully traversed.

While this rejection is respectfully traversed, in order to advance the prosecution of this application, Applicants have amended independent Claim 67 to recite the steps of forming a non-single crystal semiconductor film over a substrate; emitting a laser beam from a laser oscillator; splitting the laser beam into a first laser beam and a second laser beam, wherein each of said first laser beam and said second laser beam is elongated in one direction on an irradiation surface; and irradiating said non-single crystal semiconductor film with said first laser beam from a front surface of said substrate and with said second laser beam from a back surface of said substrate by relatively moving said substrate in a direction perpendicular to said one direction. These features are shown, for example, on page 13 and in Fig. 2 of the present application.

In contrast, Sakurai discloses the use of two separate heat lamps. As the Examiner admits, Sakurai does not disclose or suggest the use of a laser, nor does it disclose or suggest splitting a laser beam into two laser beams and irradiating the front side of the substrate with one of the split laser beams and irradiating the back side of the substrate with the other of the split laser beams, as recited in independent Claim 67 of the present application.

The Examiner, however, cites Wakita as disclosing a laser and contends that it would have been obvious at the time of the invention to modify Sakurai by using a laser beam as taught by Wakita to heat treat/crystallize at lower temperatures.

While Applicants do not admit that such a combination is proper, even if combined, the two references do not disclose or suggest splitting the laser beam into a first laser beam for irradiating the front surface of a substrate and a second laser beam for irradiating the back surface of the substrate, as recited in independent Claim 67 of the present application.

Accordingly, independent Claim 67 and those claims dependent thereon are not disclosed or suggested by the cited references but are patentable thereover. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 72-73 and 75

The Examiner also rejects Claims 72-73 and 75 under 35 USC §103(a) as being unpatentable over Sakurai in view of Wakita and further in view of Im. This rejection is also respectfully traversed.

Claims 72-73 and 75 are dependent claims. Therefore, the rejection of these claims is overcome for at least the same reasons discussed above for independent Claim 67. Hence, it is respectfully requested that this rejection be withdrawn.

Claim 71

The Examiner further rejects Claim 71 under 35 USC §103(a) as being unpatentable over Sakurai in view of Wakita and further in view of Kudo. This rejection is also respectfully traversed.

Claim 71 is also a dependent claim. Therefore, the rejection of this claim is overcome for at

least the same reasons discussed above. Hence, it is respectfully requested that this rejection be withdrawn.

Withdrawn Claims

On June 3, 2003, the Examiner issued a species restriction requirement. In response, Applicants elected the species of Claim 67 and stated that they believed Claims 67-85 read on this species. Thereafter, the Examiner treated Claims 61-66 and 76-85 as withdrawn.

Applicants have now amended withdrawn independent Claims 61, 63, 65, and 76 to recite emitting a laser beam from a laser oscillator; splitting the laser beam into a first laser beam and a second laser beam; and irradiating the semiconductor film with the first laser beam from a front surface of said substrate and with said second laser beam from a back surface of said substrate.

Accordingly, it is respectfully submitted that the restriction requirement has been overcome, and Applicants request that these claims no longer be treated as withdrawn.¹ Therefore, for at least the reasons discussed above, these claims are also patentable over the cited references. Accordingly, it is requested that they be entered, considered, and allowed.

New Claims

Applicants are also adding new dependent Claims 86-95. For at least the reasons discussed above, these claims are also patentable over the cited references. Accordingly, it is requested that they be entered and allowed.

If any fee should be due for these new claims, please charge our deposit account 50/1039.

¹ Applicants are still treating Claims 80, 81, 83 and 84 as withdrawn. Claim 85 has been canceled without prejudice or disclaimer.

Conclusion

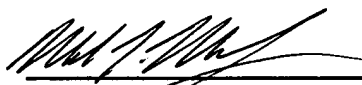
For at least the above-stated reasons, it is respectfully submitted that the present application is in a condition for allowance and should be allowed.

If any fee is due for this amendment, please charge our deposit account no. 50-1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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